



A STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICES OF ANTENATAL WOMEN ABOUT CONGENITAL ANOMALIES OF NEW BORN.

Gynaecology

Rajani Nawal

Assistant professor Department of Obstetrics and Gynaecology, S.M.S Medical College, Jaipur 302004 (Rajasthan)

Avantika Sharma

Senior Resident Department of Obstetrics and Gynaecology, S.M.S Medical College, Jaipur 302004 (Rajasthan)

Nupur Hooja*

Senior Professor Department of Obstetrics and Gynaecology, S.M.S Medical College, Jaipur 302004 (Rajasthan) *Corresponding Author

ABSTRACT

Birth defects are a significant cause of mortality and disability among infants and children under five years of age. Inadequate knowledge of antenatal women about these could affect timely management. The study was undertaken to assess the knowledge, attitude and practices of antenatal women related to congenital anomalies and association of knowledge with their sociodemographic profile. A cross-sectional observational study was conducted including 400 antenatal women. A pre designed, pre tested, structured questionnaire was used to assess their knowledge attitude and practices. Most of the women had poor knowledge score and did not know that some birth defects are preventable. 65% women did not know about the gestational age permitted under MTP act. Improved knowledge, attitude and practices related to congenital anomalies would be helpful in reducing births with congenital anomaly and thus burden to family and society.

KEYWORDS

Birth defects, Knowledge, Attitude

Introduction

Though a newborn brings in its wake untold happiness to those around, there are some unfortunate babies whose birth is clouded with sadness and worry for the parents because of the birth defects. (1) Birth defects (BD) are a significant but under-recognized cause of mortality and disability among infants and children under five years of age. (2) The world health organization has defined the birth defect as structural and functional abnormalities that are seen at birth. (3) Children who survive and live with BD are faced with the increased risk of developing life-long physical, cognitive and social challenges on which medical intervention and other supportive services have little impact (4), hence the need to increase awareness among the expectant mothers. Besides the physical challenges faced by the children with defects who survive, these affect the medical burden of the society and have great psychosocial impact on the family. Inadequate knowledge and wrong attitude and practices of antenatal women about these could affect timely action and social burden.

Aim and Objective-

This study was undertaken to assess the knowledge, attitude and practices of antenatal women related to congenital anomalies in newborn and to determine socio-demographic factors associated with this knowledge.

Material and Method – A cross sectional observational study was conducted at S.M.S. medical college, Jaipur between the time period January 2016 to January 2017. Four hundred pregnant women who attended antenatal OPD and gave their consent to participate in this study were included. Sample size was calculated at 95% confidence level assuming 48% moderate overall knowledge on birth defects as per study of Bello et al. (2) at the absolute allowable error of 5% in overall level of knowledge, minimum 384 participants were required as sample size which was enhanced and rounded off to 400 participants as final sample size. Subjects were recruited using convenient sampling. Antenatal women who had difficulty in communicating due to language problem or other causes and women who were in health profession were excluded from study.

A pre-designed, pre-tested, structured questionnaire was used to obtain information on socio-demographic characteristics from the participants and their knowledge about Birth Defects. The questions were scrutiny by two experts in this field to remove seemingly ambiguous questions. Knowledge domain contained 15 questions with two possible answers (yes/no) and each question given equal weightage (Correct answer=1, wrong answer=0). The possible scores on the knowledge domain of the questionnaire were categorized into

three levels: low knowledge (0–5), moderate knowledge (6–10) and high knowledge (11–15) levels. One question about their attitude and three questions regarding their practices were also inquired. The test re-test reliability of the questionnaire was assessed by repeating it on 20 pregnant women and Chronbach's alpha of 0.88 was obtained. The questionnaire was used as self-researcher-administered tool. Ethical clearance was obtained from

Institutional ethical committee prior to initiation of study. Written informed consent was obtained from each study participant prior to data collection.

Statistical analysis: Qualitative data was expressed as number and percentage. Quantitative data was expressed as mean and standard deviation. Difference in knowledge score was assessed using Mann Whitney U test. Chronbach's alpha was calculated for test retest reliability. A p value < 0.05 was taken as statistical significant.

Result

Varying knowledge was seen among study subjects regarding different aspect of Congenital anomaly (Table 1). Most (47.5%) of the women had low knowledge score of <5 and only 10% subjects had high knowledge score of 11 – 15 (Figure 1). About 70% women knew about birth defect but most of these had poor specific knowledge about risk factor, prevention and management. Only 20% women knew that birth defects are preventable. More than one third (40%) women said that pregnancy with birth defects needs termination and only 2% subjects knew it to be legal only up to 20 weeks of Gestation. Nearly half (47.5%) of the women had an attitude of continuing the pregnancy if diagnosed with a defect compatible with life. Limb defect and cleft lip/palate were the most common anomalies known to women (Table 2). Nearly one fourth (22.5%) of women had myth that certain food can cause Birth defect (Table 3). The mean age of study subjects was 24.7 ± 5.9 years, with most of the study subjects being aged <25 years (65%). Most (70%) of the study subjects were Hindu. Women with middle socioeconomic status and secondary or higher education had significantly better knowledge score (Table 4). Multigravida women and women with previous pregnancy loss had a significantly better knowledge score (Table 5). Though most (82.5%) women had at least one ANC visit with one USG within 20 weeks showing good practice, only 45% women knew that Birth defects can be diagnosed antenatally by USG, and one of the use of USG is to identify birth defect but with an average knowledge score of 6.7. those who had no visit with poor score of 3.3. 55% of total women had an early visit with reason being past bad obstetric history of self or known. 30% women went for early visit only when they had any complaints.

Discussion:

This study determined the knowledge of pregnant women about congenital anomalies. Most women had poor and moderate knowledge about birth defects in present study. A study by Bello et al (2) also reported that most antenatal women had moderate knowledge.

More than half of women knew certain drugs as cause of BD. Bello et al (2) reported that some medication was the most frequently identified risk factor by 389(87.8%) respondents.

Only 22.5% subjects in present study knew that age>30 years could be a risk factor of BD. In study by Bello et al, 192(43.3%) participants identified advanced maternal age (≥40 years) as a risk factor of BD. Tan et al. (5) also revealed that 71.7% of antenatal mothers were aware that the risk of Down syndrome increases with maternal age of community-dwellers in Singapore. This difference may be due to difference in education of study participants.

In present study, 55% women knew smoking and alcohol as risk factors of BD as was similarly reported by Bello et al (2) where majority of participants easily identified alcohol, as risk factors to BD. Similar findings were also reported by Hackshaw et al (6)

Very few women (10%) knew role of iodine in prevention of BD. Bello et al (2) reported that 42.2% were aware that consumption of salts fortified with iodine in their meals could reduce the incidence of BD. This knowledge may not have been abreast with iodine role in reducing the risk of BD but may be aware about the general importance of iodated salt which might have affected their responses.

Myths about BD vary from place to place. In present study, 10% women said that BDs are due to supernatural power, while 22.5% considered it to be caused by certain food items. Bello et al (2) reported that 48.1% believed that BD were due to supernatural factors and 23.7% believed that eating some forbidden foods during pregnancy can lead to BD.

In this study, multigravida, higher socio-economic status, higher educational qualification and previous pregnancy with BD were found to be significantly associated with knowledge score. Contrary to this, Bello et al (2) found that here were no significant relationships between the specific knowledge of the participants and their ages, educational level, number of pregnancies, and the number of antenatal visits. This may be due to difference in general characteristics of women utilizing health services at different places.

Conclusion –

Every woman desires a mentally and physically healthy baby, still knowledge of most women about congenital defects is poor and varying. A good number of women wanted to continue the pregnancy if the detected birth defects are compatible with survival. This attitude will only increase the financial and health burden of family and society. Most women had very poor knowledge about the pre-conceptional preventive medication, antenatal care/measures for early diagnosis and management, option of legal termination if diagnosed before 20week with purpose of prevention. Improved knowledge through (information, education, communication) measures, peripheral health workers, mass media etc could help change the attitude and practices related to congenital anomalies and reduce family and social burden.

Table 1: Knowledge of Pregnant Women about birth defects

| SN | KNOWLEDGE QUESTIONS | % of women | |
|----|--|-------------|-------------|
| | | Yes | No |
| 1. | Do you know about birth defects? | 280 (70%) | 120 (30%) |
| 2. | Are there some maternal disease which cause intrauterine defects? | 170 (42.5%) | 230 (57.5%) |
| 3. | Could it be a result of defect in genetic make up of fetus? | 180 (45%) | 220 (55%) |
| 4. | Maternal Age>30 yrs increases risk? | 90 (22.5%) | 310 (77.5%) |
| 5. | Alcohol and smoking increase risk? | 220 (55%) | 180 (45%) |
| 6. | Certain category of drugs if not modified may result in birth defects? | 220 (55%) | 180 (45%) |

| | | | |
|-----|--|------------|-------------|
| 7. | Consanguineous marriage increases risk? | 0 (0%) | 400 (100%) |
| 8. | Family history of BD is a risk factor? | 70 (17.5%) | 330 (82.5%) |
| 9. | Are BDs preventable? | 80 (20%) | 320 (80%) |
| 10. | Can consumption of iodised salt prevent some BD? | 40 (10%) | 360 (90%) |
| 11. | Are there some medicines (Tab folic acid) if taken for one month before and in first 3 months after conception can prevent BD. | 50 (12.5%) | 350 (87.5%) |
| 12. | Can ultrasonography diagnose most of these defects before birth? | 180 (45%) | 220 (55%) |
| 13. | Do pregnancy with fetal malformation needs termination? | 160 (40%) | 240 (60%) |
| 14. | Do you know termination of pregnancy is legal if diagnosed before 20weeks? | 8 (2%) | 392 (98%) |
| 15. | Are all birth defects incompatible with survival? | 0 (0%) | 400 (100%) |

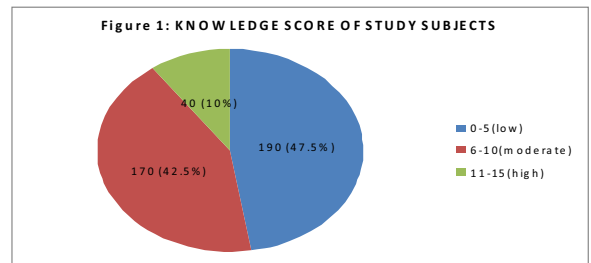


Table 2: knowledge about different type of birth defects

| Birth defects | N (%) |
|--------------------------|-------------|
| Limb defects | 110 (27.5%) |
| Cleft lip/cleft palate | 100 (25%) |
| Congenital heart disease | 40 (10%) |
| Anencephaly | 10 (2.5%) |
| Syndromic neonate | 20 (5%) |

BD = Birth defect

Table 4: knowledge score in relation to different socio-demographic profile

| Variable | Sub group | N (%) | knowledge score (mean ± SD) | P value |
|----------------------|-------------------|-------------|-----------------------------|-----------|
| Age (years) | <25 years | 260 (65%) | 5.5 ± 3.2 | 0.354 |
| | 25-30 years | 130 (32.5%) | 6.0 ± 2.9 | |
| | >30 years | 10 (2.5%) | 7.0 ± 3.1 | |
| Religion | Hindu | 280 (70%) | 5.3 ± 2.8 | 0.263 |
| | Muslims | 120 (30%) | 4.8 ± 3.1 | |
| Residence | Rural | 30 (7.5%) | 4.6 ± 2.7 | 0.061 |
| | Urban | 370 (92.5%) | 5.7 ± 3.1 | |
| Socioeconomic status | Middle | 90 (22.5%) | 8.1 ± 4.5 | 0.002 (S) |
| | Lower | 310 (77.5%) | 5.3 ± 3.1 | |
| Education | Below Secondary | 210 (52.5%) | 4.5 ± 2.5 | 0.014 (S) |
| | Secondary & above | 190 (47.5%) | 6.1 ± 2.9 | |

Table 5: knowledge score in relation to Obstetric profile of study subjects

| Obstetric characteristics | Sub group | N (%) | knowledge score (mean ± SD) | P value |
|---------------------------|---------------|-------------|-----------------------------|---------|
| Gravida | Primigravida | 150 (37.5%) | 5.3 ± 2.6 | 0.136 |
| | Multi gravida | 250 (62.5%) | 6.1 ± 4.3 | |

| | | | | |
|---|-----|-------------|-----------|-----------|
| Previous h/o baby with birth defects | Yes | 20 (5%) | 8.1 ± 3.2 | 0.009 (S) |
| | No | 380 (95%) | 5.7 ± 2.9 | |
| Previous pregnancy loss (excluding birth defects) | Yes | 110 (27.5%) | 7.1 ± 3.4 | 0.028 (S) |
| | No | 290 (72.5%) | 5.5 ± 2.8 | |

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